ABSTRACT

A system on a chip (SOC) integrated circuit is disclosed. The SOC integrated circuit includes a plurality of logic functions. The logic functions include a plurality of base functions and a plurality of peripheral functions. The SOC integrated circuit includes at least one field programmable gate array (FPGA) cell that is coupled to the plurality of peripheral functions. The FPGA cell can then be configured to selectively enable the plurality of peripheral functions. Accordingly, one or more FPGA cells are provided on an SOC. The FPGA cells can then be selectively configured to enable one or more peripheral chip functions. Because FPGAs are customized "in the field", i.e., in a specific customer application, one SOC part number containing all peripheral functions can be used to satisfy multiple customer markets.